

# THE LEISURE HOUR.

A FAMILY JOURNAL OF INSTRUCTION AND RECREATION.

"BEHOLD IN THESE WHAT LEISURE HOURS DEMAND,—AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND."—*Corper.*



"SO THEY MARRIED, AND LIVED HAPPY EVER AFTER."—*Old Tale.*

## THE FORGED WILL.

CHAPTER XIII.

"WELL, Doctor Cruden," said Mrs. Brimble, "what is your opinion of the improvements going on at the Due? Mr. Brimble will not take us till all is complete."

"The place will be charming, and so transformed that poor Marjory will not know it. Sir Eustace has an excellent taste, has he not, squire?"

"He's excellent every way, except that he has a sort of Saunders look sometimes, Mary thinks."

"We are none of us infallible, Mr. Brimble; and so

exposed to mistakes as we have been by your imprudence, it was necessary I should be cautious."

"Quite," said the squire, who was watching with his eye-glass through a side window, something that attracted him, and he immediately left the room.

"I think Eustace will be a valuable person in that position, doctor," continued the lady, looking up from her work frame, on which she was embroidering the arms of De la Mark for a chair for her new nephew.

"I feel sure of it," said the doctor.

"We shall miss him very much when he settles at the Due. I hope he will marry well."

"I don't know any one better able to choose a good wife, madam, and he is worthy of the best; therefore his marriage will doubtless give satisfaction."

"I daresay, like all young men in his position, he has been married to more young ladies than one by the country gossips."

"Not unlikely," said the doctor.

"I have not heard any reports," said Mrs. Brimble; "but of course people would be delicate in speaking to me."

"Oh yes, very properly so," said the doctor, not in the least divining the lady's tactics.

"I suppose," said Mrs. Brimble carelessly, looking very intently on some shades of wool, as if her whole heart were fixed upon making a right choice, "you have never heard anything hinted, doctor?"

"I cannot say I have not. My sister, in her numerous visits, falls in with such reports, and she has told me of several; but I think none likely, though indeed one lady that I am not at liberty to name would shine in married life."

Mrs. Brimble got quite out of sorts with her wools, and had to tumble her basket over for some time before she was calm enough to ask the doctor for the lady's name, which of course she did not wish to know from idle curiosity, but out of pure disinterested affection for her dear nephew.

"I hope I am not doing wrong," said the doctor, "in mentioning the Honourable Amelia Groves."

"Oh, you need not fear my mentioning it," said Mrs. Brimble quickly; "but *that* will never come to anything. I know the kind of girl he ought to marry—some one with spirit, lively and amusing, and if I know anything of Eustace, his choice is nearly made, if not quite."

"Oh," said the doctor, "I am sure you ought to tell me."

"If you have not had a guess that way yourself, doctor, I would rather not."

The doctor looked up at the ceiling, crossed and uncrossed his legs, leant his head upon his hand, rubbed his forehead, and went through all the various manœuvres which imply deep thought, finishing the process by guessing one of the Miss Panters.

"I am a bad hand at guessing," he said, finding that Miss Pantar was not well received. "At one time I thought it not unlikely that poor little Marjory would be his choice, but I think now he never felt anything for her but deep pity; and as to her, poor girl, her heart is buried with her father, whom I fear she will shortly follow."

"I thought people never died of grief, doctor."

"Grief is a strong consumer, madam; but Marjory inherits from her mother that terrible disease that laid her in an untimely grave."

The squire re-entering turned the conversation. "Eu tells me that he must return to-night, and that you go with him, and he wants me to go too; he says he has capital quarters there, so I think of sending one of the fellows on with some dogs—Eh, Mary? only for a day or so, you know."

Flora came into the room just in time to hear the announcement, and protested loudly against it, denouncing her cousin Eu in no very measured terms, for his unreasonable proposal.

"You little vixen," said the squire, "isn't it enough for your mother to sit there harrowing my heart with her looks, but I must stand your tongue too? How would it be if we all went?"

"Oh, lovely," said Flora; "how I should like it!"

"Highly incorrect," said Mrs. Brimble.

"My dear Mary, if you would be so very correct, you must abide by being uncomfortable; let us share the honours; you shall be correct, and Flo and I will be comfortable. Flo, we'll go—we'll have rooms at the 'De la Mark Arms,' and we can rough it there for a night."

The horror of Mrs. Brimble at such a proposal was too much for the squire, and, taking the doctor's arm, with a mischievous laugh he left the room.

"I'm sure papa has got something in his head," said Flora; "see how he's talking, too, in the garden with Dr. Cruden, he is so delighted. What can it be?"

While Flora and her mother were watching and wondering, Charity was learning the secret that so perplexed them. She had been reading to Marjory, and a gentle tap at the door introduced, to her great surprise, her cousin Eustace. He so strongly recalled Marjory's most painful feelings, that it was sometimes beyond her strength to be long in his society. To-day she felt weaker than usual, and left the room soon after he entered it.

An awkward silence ensued, then a few remarks as to her state. At length Eustace, breaking through the restraint, said, "Cousin Charity, I fear I have driven Marjory away, and yet I cannot regret it; indeed, my purpose was to see you: yes, and to see you alone, a privilege I have sometimes thought you studiously avoided giving me. I wanted to ask you one question: Is the kind feeling with which you regarded me when I was poor Jobson quite gone?"

Charity was silent; but a glance at her satisfied Eustace that he had nothing to fear.

About half an hour afterwards, Eustace joined his uncle, telling him that he had received Charity's consent, for which he had asked permission to plead, and that there was now no necessity to punish him with a secret.

The squire shook him warmly by the hand, and lost no time in taking advantage of his liberty.

#### CHAPTER XIV.

"Who's ready for Parker's Due?" said the squire, entering the drawing-room. "Now is your time to see it, for I have just heard a grand secret—there is going to be a wedding."

"Oh, I am so glad," said Flora. "Who is it?"

"Well, that is very good-natured," said the squire, "considering you have nothing to do with it; and yet we are all deeply interested in it. Now guess who it is. I am sure it's worth a guess."

"Oh, it's cousin Eu, of course," said Flora.

"Ay, but the lady, Flo, the lady—"

Mrs. Brimble looked up nervously.

"Miss Pantar," and "the Honourable Amelia Groves," died upon her lips.

"What! give it up without a guess?" said the squire, looking at them both.

"I know whom he ought to have married," said Flora, with a little toss of her head.

"You?" said the squire.

"Me!" said Flora, "he would have despised me before a month was up, as Marjory does in five minutes. Oh no, he is beyond me, besides being too old."

After a little more teasing, in which the squire did not spare Mrs. Brimble's penetration, the secret was out; and a day of much rejoicing it was at Brimble Hall.

It was arranged that, on the marriage taking place, Marjory should occupy rooms fitted up for her at Parker's Due, as her own independent home; but she did not live to see their completion.

"By the grace of God, you know, Shady," said Sir Eustace, when fairly settled, "as you once interpreted to

me, "we have all things;" and constantly had Shady proof that his master knew this. As home steward and librarian, he reigned supremely happy in his paradise, but never so happy as when labouring under Sir Eustace's direction for the improvement of the poor around.

Mrs. Gillies was now truly the housekeeper of Parker's Due, with a goodly retinue of underlings.

Squire Brimble, as years advanced and the influence of his son increased, lost the dark clouds that had at times obscured his sunshine, and enjoyed a far more solid happiness than he had known in the most joyous days of his youth. For once Dr. Cruden was successful in a speech; perhaps it was because he repeated it so often. "A happy day for you, friend, for me, and for us all, was that which brought Sir Eustace to us. Parker's Due in its proudest days surely never was crowned with brighter blessings than shine on it now."

\*. Those of our readers who are familiar with legal records, must remember several *causes célèbres* with incidents resembling the main facts in the foregoing tale. Even the dead man signing the will is true. The detection of a similar fraud was one of O'Connell's early professional triumphs. A case occurred in Somersetshire since the beginning of this century. Of an older date, the following instance appears in "Nichols' Leicestershire:—"The family of De Folville came in with William the Conqueror, and settled at Ashby Folville, in the county of Leicester, in the reign of King Stephen. In the reign of Edward III, Sir John Folville induced his brother Christopher to marry a favourite servant named Margaret, who, being afterwards left a widow, was received by Sir John, and 'mickle cherished' by him at his house in Ashby Folville, 'where she kept great house.' When Sir John died, she obtained possession of his seal, and having 'imagined false deeds and enfeoffments, she sealed them with his hand when he was dead; for she kept him three days after he was dead, unknown to all the town, while she waited for her false counsels to come and help her make her false enfeoffments.' By the false will she took the property from the lawful heirs, and devised the greater part to Lawrence Hawbeck, of Grimstone, whom she afterwards married. All this she confessed in her death sickness to the Abbot of Croxton."

### BALLOON ASCENTS.

THE names of Messrs. Glaisher and Coxwell, in connection with balloon ascents for scientific purposes, must by this time have become familiar to our readers. Their first ascent was made from Wolverhampton in July last, when many observations of interest were successfully recorded. A local paper gives the following account of the second ascent from the same town:—

"Subsequent to Mr. Glaisher's last ascent from Wolverhampton he made an ascent from the Crystal Palace, the observations on which occasion supplied the gap that was left, as it were, in the Wolverhampton ascent, namely, observations for the first mile of the ascent. This drawback to the ascent at Wolverhampton was owing to the circumstance that Mr. Glaisher had to fix and arrange his instruments after the balloon had been set at liberty. On the present occasion he fixed them before starting—a process attended with no little danger, considering the delicacy of some of the instruments, and the rough treatment that one may expect them to receive amidst the dozens of hands that cling round the balloon to hold it down. They consisted of, among other things, an exceedingly delicate dry and wet bulb thermometer, with long narrow cylindrical bulbs; a similar instrument with the bulbs introduced within tubes that are connected with an exhausting apparatus invented to draw off the air with more than natural rapidity, passing from the surface of the dry bulb first, and then from the surface of the wet bulb. This instrument would be of especial service should the balloon assume a state and position of perfect quiet. There was also Regnault's condensing hygrometer, furnished with a pair of gold cups and appa-

ratus to cause rapid evaporation; likewise Daniel's hygrometer, an instrument of two bulbs, one covered with muslin and the other blackened; the ether applied to the covered bulb lowers the temperature of the blackened bulb to that temperature at which the water in the air is deposited in the shape of dew. Mr. Glaisher also took up a thermometer, which, if anything, was more delicate still than any of the instruments named. It had been specially made for the occasion, and the bulb was made to present a greater surface by being shaped like a gridiron. Its use would be more specially required should the balloon make a quick ascent, and it was constructed to register the temperature with more rapidity than any of the other instruments. There were also a syphon mercurial barometer and an aneroid barometer, for determining the elevation and varying pressure at different periods of the ascent; likewise a delicate compass to determine the vibration of the magnet at different heights.

"At a few minutes before one o'clock all was ready for starting. It was then discovered that the balloon was too buoyant, and gas was discharged till the machine contained not more than 70,000 feet. Mr. Glaisher then made a few prefatory observations, and Mr. Coxwell, taking his seat in the netting, the machine was set at liberty at 2 m. 38 secs. past one o'clock. The ascent was all that could be desired; the balloon rose beautifully and rapidly, taking a course of south by west, half west—or a point and a half to the west of south, being in the direction of Worcester. Its progress, however, instead of being forward was upward, and it got very little to the south of the town; it seemed rather to stand completely over it. After the first ten minutes it was lost in a cloud, but soon re-appeared to be lost again till about twenty minutes past one, when it was observable at an immense altitude—estimated by Mr. Coxwell's assistant at not less than three miles. From twenty minutes to half-past one it was again lost, but at the time last mentioned it appeared again like a transparent ball, the sun shining on the outer edge of the balloon, and giving it the appearance of the moon at day time, and as happy an illustration as any we have seen of the moon's phases. It was then pursuing a course two or three points to the east of south, going in the direction of Birmingham, and evidently lowering fast, or making a 'dip,' so that it might rise again and give Mr. Glaisher an opportunity of repeating the observations that he had taken in the earlier part of his journey. The locality of the 'dip' seemed to be over Wednesbury or Dudley Port. After it had been made, the balloon appeared to be almost stationary; but a careful observer could see it gradually rise, at a rate, however, which was far less rapid than when it was over the town of Wolverhampton.

"The locality of the descent was not known in Wolverhampton till seven or eight o'clock in the evening, when Mr. Glaisher and Mr. Coxwell returned. They stated that their journey had in every respect been successful; that they had obtained an altitude of four and a half statute miles, or 23,760 feet, and that they descended near Solihull, a few miles beyond Birmingham, at 4.25 p.m. In the course of their journey they made but one 'dip,' and then rose again into the higher strata, gradually ascending to their highest altitude, and then descending at the place named. When four and a half miles high the temperature stood at 24 deg., the barometer 13 inches, and the dew point, which at starting was 51, was minus 10. At that height the aeronauts felt all the symptoms of sea sickness, the same as on their last ascent, though on this occasion Mr. Glaisher suffered much more severely. The hands and lips

\* Parker's Due, corrupted from Par grâce de Dieu. See p. 465.



assumed a bluish hue, there was a severe pressure on the brain, which, in the case of Mr. Glaisher, produced intense headache, which lasted many hours afterwards. Considering the pain that Mr. Glaisher was suffering, it is a matter of surprise that he was able to continue his observations, or at any rate to the wonderful extent which he seems to have done; for the minute-book records the registering of the various instruments during almost every minute of the journey. Though the symptoms were unpleasant enough, there was none of that bleeding of the nose, singing of the ears, and distension of the muscles that popular belief describes as the almost inevitable consequences of an aerostatic journey at a high altitude. The rarefaction of the atmosphere produced the same phenomena that were observed on the occasion of the former voyage, though hardly, in some respects, to such an intense degree. The throbbing of the heart, for instance, was not so distinctly heard, but the pulsation was nevertheless wonderfully accelerated; in the case of Mr. Glaisher the pulsation was 108 in the minute, and in the case of Mr. Coxwell it rose from 78 to 100. When over the town of Wolverhampton, at a height of more than three miles, the temperature was 37 degrees, and at this and the higher altitude which the aeronauts subsequently attained they had to wrap themselves in additional clothing. A circumstance that was not noticed on the occasion of the first ascent was an accumulation of ice on the wet and dry bulbs of the thermometers; at one period of the journey the coating became quite a thick one. Another interesting discovery that was not made on the occasion of the former voyage was the presence of ozone, which Mr. Glaisher states was present to the extent of about nine points. In making their 'dip' after the aeronauts veered to the south-east of Wolverhampton, they descended into a region where the temperature was about 50 deg.; at less than a mile high the temperature was about sixty deg., and on this occasion, the journey being comparatively free from clouds, there was no irregularity in the decrease of the heat of the atmosphere according to the ascent—it was gradual and almost regular throughout. The observations of the former voyage, relative to the dryness of the atmosphere in the higher regions, were confirmed; at the lower elevations the observations confirmed the generally conceived notions. —At half-past two o'clock, when at an altitude of three miles, the temperature was 28 degrees, and the dew point at 6; five minutes afterwards, when some feet higher, it was at 3, and when the balloon rose still higher it decreased to *minus* 5, and afterwards to the lowest point of the voyage, namely, *minus* 10. In making their descent it increased again, and when the earth was reached it stood at 50. The balloon moved very slowly, and Mr. Glaisher had ample opportunity to make observations, not only of his instruments, but also of the view around him. The appearance of the scene was grand in the extreme. All around was a vast expanse of blue; the whole atmosphere seemed bathed in it, or it might be likened to an immense shoreless ocean. Clouds, shaped and packed like rocks, supplied the place of land; others floated about like immense icebergs, and in the distance others stretched themselves away like a range of snow-clad mountains. As the balloon floated before the wind, one of these immense clouds—which was apparently unobservable to those who watched the balloon at a distance—followed in its wake, and it was not till the machine sunk into lower strata that its aerial attendant left it. The appearance of the earth was almost as pleasing as the appearance of the heavens. Wolverhampton, the Black Country, and Birmingham lay stretched below the

balloon like a map, and it required little imagination to suppose that it was laid on a chequered carpet, to which the surrounding country could easily and correctly be likened. The outline of the buildings, streets, roads, and canals, was distinctly defined, and the Black Country showed its beauties in a marvellous degree. The flames of the furnaces and the masses of dark refuse which grace that part of the district were very conspicuous, and the appearance of the country generally bore no little resemblance, Mr. Glaisher said, to the surface of the moon. When the balloon was at an elevation of not more than a mile or so, terrestrial voices could be very distinctly heard. The ringing of a bell, for instance, was as clear and resonant as though the voyagers had been but a few yards from it; the voices of people shouting could also be heard, and when at an altitude of three miles the aeronauts heard a clap of thunder. One singular feature of the journey was the appearance of the *cirri*, or clouds known as the 'mare's tails.' Let the balloon be high or low it never seemed to approach them; they seemed as far over head at four and a half miles as they were at one mile. Shortly after the machine had made a slight descent from its highest elevation, namely, at 3.20 or 3.25 p.m., the aeronauts held a consultation about the advisability of going still higher than they had been. On the suggestion of Mr. Coxwell, it was determined not to attempt it, so a few minutes afterwards preparations were made to descend. As the balloon approached the earth, a very singular phenomenon presented itself; the aeronauts observed the shadow of it on the earth below, surrounded by the prismatic colours. This singular appearance was observable for a short time, but gradually faded away. Among other observations it may be added that the earth did not present a concave or cup-shaped appearance, according to the popular belief, but the horizon always appeared on a level with the car. As the machine neared the earth, the descent became more rapid, and it was not till half a dozen bags of ballast had been thrown out that the loss of gas in the upper air had been counteracted. Mr. Coxwell landed it in the middle of a field, where it alighted almost as steadily as a feather. Such a quantity of gas had been allowed to escape, that as the balloon approached the earth Mr. Coxwell allowed the neck of it to go upwards, and it assumed the shape and appearance of a parachute. Not a single instrument was broken throughout the whole of the journey; and the voyage was as successful in every respect as the most sanguine could have desired."

Mr. Glaisher himself gives the following account of another ascent in the neighbourhood of London:—

"On Wednesday August 20 the balloon left the Crystal Palace at 6.26, the temperature at the time being 66 deg., and the wet bulb thermometer reading 5½ deg. lower. By 6.35 we were half a mile high, the temperature being 56 deg. At 6.37 the height of three quarters of a mile was attained, and we were still over the Palace. At 6.43, when at the height of nearly a mile, we passed through a thin cloud, the earth being just visible. The temperature at this time was 50 deg., and the wet bulb nearly 48 deg. We continued at this elevation and temperature, and then descended 200 or 300 feet. At 6.55 the Palace was seen, and was barely visible at 6.57. We kept at this height till 7.2, when Kennington Oval was in sight. At 7.9 St. Mark's Church, Kennington, was exactly underneath us. We were now about a mile in height, with a temperature of 48 deg., and the hum of London was heard. We then descended gradually in height, and at 7.12 lights were being lighted over London, the hum of London greatly increasing in

depth. At 7.22 the half of Kennington Oval was lighted up. At 7.19 shouting was heard of people below, who saw the balloon. At this time we were within 1500 feet of the earth, and continued between 1500 and 2500 feet till 7.40, the temperature varying but little from 57 deg., the wet bulb reading about 3 deg. less. The appearance of London lighted up at this time was fine, and associated as its appearance was with the deep sound—or rather roar—of the traffic of the metropolis, constituted a truly remarkable scene. For a considerable time Kennington Oval and Milbank Penitentiary were in sight; and it seemed as though we could not get away from them. At 7.40 Mr. Coxwell determined to ascend above the clouds. We were then about 2500 feet high, and the temperature was 53 deg. At 7.42 we were 3500 feet high, the temperature being 51 deg. At 7.47 we were a mile high, and the temperature was 45 deg. It was very dark looking down, but there was a clear sky above, and a beautiful gleam of light appeared. We still ascended till the clouds were below us, and both tinged and coloured with a rich red; the temperature had now fallen to 43 deg., and we were enveloped in a fog again. At 7.52 the striking of a clock and tolling of a bell were heard. It was quite dark below, but the sun tinged the tops of the clouds. At 8.5 we were quite above the clouds, the hum of London gradually died away, and it became light again. By this time the temperature had increased to 55 deg., the barometer reading 23 inches. After this we descended, and it became too dark to read any instruments. London again was seen, very different indeed in its appearance to when we could pick out every square, street, bridge, etc., by its indistinct lights; now, as seen through the mist, it had the appearance of a large conflagration of enormous extent, and the sky was lit up for miles around. After a time the lowing of cattle was heard, and we seemed to have left London, so Mr. Coxwell determined to pass through the clouds and examine the country beneath. We passed from the comparative light above to the darkness beneath, momentarily becoming darker, and found ourselves some little distance from London. It is in the management of a descent under circumstances like these that the skill of the aeronaut is taxed to the utmost. The darkness precluded the use of the grapnel on this occasion, and the possibility of observing the nature of the ground, till skirting the tops of trees. Mr. Coxwell proved himself perfectly competent, the balloon ascending and descending at his will, and shortly touched the ground, so gently that one was scarcely aware of the contact, in the centre of a field at Mill Hill, about one and a half miles from Hendon.

"It was resolved to anchor the balloon for the night, and I engaged it for the morning for the British Association observations, Mr. Coxwell assuring me that he could attain an elevation of fully three miles—a height as high as the barometer I had with me was adapted to work.

"On the morning of August 21, by half-past four, my instruments were replaced, and we again left the earth. The morning was warm, but dull, the sky overcast with cirro-stratus cloud. The temperature was nearly as high as 61 deg., and the wet bulb read 59 deg. There were in the car, besides Mr. Coxwell and myself, Captain Percival, of the ~~London~~naught Rangers, Mr. Ingelow, and my son.

"We at first rose very slowly. By 4.38 we were 1000 feet high, and the temperature was 58 deg. At this time Mr. Coxwell's pulse was 95; Mr. Ingelow's, 80; Captain Percival's, 90; and mine, 80. At 4.41 there was a break of clouds in the east, and a beautiful

line of light was seen, with gold and silver tints: we were then still only at 1000 feet. Here and there, dotted over the land, the morning mist was sweeping. At 4.51 the temperature was 50 deg.; the wet bulb read 47 deg.; scud was below us, and the night-cloud was in a transition state, forming into the cumulous at the same level as we were, viz., about 3500 feet; black clouds were above, and mist was creeping along the ground. At 4.53 we were above a mile high; the temperature was 43 deg., and the wet bulb only one degree lower; we were just entering cloud. At 4.57 we were in cloud, surrounded on every side by white mist; the temperatures of the air and dew point were alike, as both the dry and wet bulb read 39½ deg. The light rapidly increased, and gradually we emerged from the dense cloud into a basin surrounded with immense mountains of cloud rising far above us, and shortly afterwards we were looking into deep ravines, bounded with beautiful curved lines. The sky immediately overhead was blue, dotted with cirrus clouds. As we ascended, the tops of the mountain-like clouds became silvery and golden. At 5.1 we were level with them, and the sun appeared flooding with golden light all the space we could see for many degrees both right and left, tinting with orange and silver all the remaining space around us. It was a glorious sight indeed. At this time we were about 8000 feet high, and the temperature had increased from 38½ deg. in the cloud to 41 deg. We still ascended rather more quickly as the sun's rays fell upon the balloon, each instant opening up to us ravines of wonderful extent, and presenting to our view a mighty sea of clouds. Here arose shining masses of silvery heaps; there large masses of cloud in mountain chains, rising perpendicularly from the plain, dark on one side, and silvery and bright on the other, with summits of dazzling whiteness; some there were of a pyramidal form, and a large portion undulatory or wavy, in some places subsiding into hollows, and in one place having every appearance of a huge lake. Nor was the scene wanting in light and shade: each large mass of cloud cast behind it its shadow, and this circumstance, added to the very many tints, formed a scene at once most beautiful and sublime.

"At 5.8 we were nearly two miles high, the temperature was 37 deg., and the wet bulb read 5 deg. lower; the air was therefore dry. At 5.18 we were above two miles in height, the temperature was 31 deg., and here it was found that Mr. Coxwell's pulse was 90; Captain Percival's, 88; Mr. Ingelow's, 100; and mine 88. The pulse of Captain Percival was so weak, he could scarcely feel it. Mr. Coxwell, on the other hand, thought his somewhat stronger. By 5.31 we were about three miles high; the temperature was 23 deg., and it decreased to 19 deg., by 5.34, the wet bulb being from 5 deg. to 6 deg. lower, showing that the temperature of the dew-point was some degrees below zero. We then continued at a little above three miles for half an hour, during which time the temperature at the same height increased 5 deg. or 6 deg. as the sun rose, and at this elevation the number of pulsations in a minute were taken: Mr. Coxwell's, 94; Mr. Ingelow, 112; Captain Percival, 78; and myself, 98. Captain Percival, however, could scarcely feel any pulsation at all.

"Shortly after six o'clock it was determined to descend. We were then about three miles from the earth. The temperature, which had been as high as 27 deg., had fallen to 23 deg. At 6.13, at the height of 2½ miles, we heard a train. At 6.20 we were two miles high, and the temperature had increased to 39 deg.; and at this time I noticed the loud ticking of a watch. Captain

Percival said he could not hear it—he was seated and I standing; and some experiments were made, when it was found that when the ear was at the same level as the watch no sound was heard, but it was remarkably distinct on the ear being situated above it.

"At the height of two miles the barking of a dog was heard. The temperature at this time, 6.24, was 43 deg., the wet bulb reading no less than 10 deg. lower. The shadow of the balloon, with the encircling oval of prismatic colours, was here very remarkable, and it increased in dimensions and vividness of colour till we entered a cloud at 6.29; the increase of temperature which had been in progress during the descent, was immediately checked, and on emerging from the cloud at 6.33, the temperature was 41 deg., and the wet bulb 40 deg. The earth was now in sight, without a ray of sunlight falling upon it. The temperature gradually increased to 56 deg. at 1000 feet high, and 62 deg. on reaching the ground, as gently as on the preceding evening, a little after seven o'clock, at Dunton Lodge, near Biggleswade. Shortly afterwards my pulse was 77; Mr. Coxwell's 77; and Captain Percival's 83."\*

#### LESS FREQUENTED WATERING-PLACES.

We had a mind to visit this summer some of the less frequented sea-side places. Railroads have made the public intolerant even of short distances untraversed by the locomotive. The whole journey must now-a-days be accomplished, or the odds are that the place not so accessible, no matter how lovely, salubrious, or desirable it may be, is forthwith struck out of our Itinerary. This reason is doubly persuasive where there is a family. Nevertheless, a little consideration would show us that the less frequentedness of such places of late years must make them cheaper, so that Paterfamilias might probably find himself a gainer at the end of his tour by selecting one of the sea-side places where the puffing monster and the scream of the whistle are as yet unheard.

Impressed with this consideration, we left Bath on a brilliant July morning, not for Weston-super-Mare with its muddy shore and dull-brown waters, nor for Weymouth with its bare uninteresting country, but for that cluster of lovely seclusions which are to be found in Dorset and that part of the coast of Devon which is east of the Exe. Here are truly marine retirements, compared with the glare and publicity of such places as Brighton and Hastings, with their incessant and multitudinous arrivals and departures. We cannot but think that this absence of crowds and real seclusion are not dearly purchased by a few miles more of travelling. *Chaque a son gout*; we vastly prefer it ourselves.

Well, there is not a sweeter land anywhere to pass through than the county of Somerset. The railroad always takes you through the valleys and by the side of the streams; and from them you can best admire the slopes of the hills and their various forms. The valley of the Avon, between Bath and Bradford-on-Avon, is pre-eminently sweet and delicious. It is narrow; but the eye is thus enabled to embrace every object so distinctly, and there is that feeling of home and comfort which wider scenes fail to impart. How often must the

city-bred and city-lived denizen, as he views some fair mansion, or even a humble cottage amid such retirements, sigh to be a dweller among their sylvan recesses, and to awake every morning to contemplate the works of God, and to see his blessings springing out of the ground, and not to be surrounded by the gloomy piles of man's erection in some overgrown town! A natural thought, and yet not always a right one; for happiness depends upon the affections, and the affections may often find worthier objects and be quickened to a fuller life in the towns. But, happily, man has rarely the choosing of his own residence; that is the best place for us, be it town or country, to which Providence conducts us.

Well, out of the green and winding Avondale our route lies through the tamer and wider scenery of North Wilts, past dull Trowbridge, and then in sight of the chalk-hills and downs about Westbury, with the famous "White Horse" on one of them. Thence we again re-enter Somerset, with its woods and orchards and scenes of exuberant fertility marking the whole course as we pass, by Bruton and Yeovil, famous for gloves, until we emerge into the more bare and chalky districts of Dorset. A chalky country always looks like a sweet, dry, and wholesome one. There is a clear outline of the hills, and an exquisite rounding of their forms, so that we are amply compensated for the general bareness and absence of vegetation, except in the bottoms. Bare, silent, and chalky Dorset has its charms as well as rich, populous, and woodland Somerset. Let us gratefully acknowledge Nature's fair varieties. There is a certain sternness in the aspect of Dorset, arising from the absence of timber, and the greater sharpness of the outlines of the landscape, owing to its geological constituents; but there is, nevertheless, a charm about it, and an air of freedom in its very wildness and forlornness, which many prefer even to the smiling countenance of plenty and contentment which broods over Somerset.

But we are arrived at Bridport, where the railway ends, and from thence in the long tract of coast extending to Exmouth, more than forty miles, there is no railway, and after Lyme there is not even a coach. Bridport ought to be an extremely salubrious place; but this cannot be said to be the case. Seated among hills, which only require to be tapped to send forth an abundance of the purest water, it is to this day ill supplied with water. The bad ventilation of the houses of the working-classes, and the want of necessary adjuncts, have generated frequent fevers, and completely deprived of its immunity what is naturally a most healthy and airy abode on a fine dry soil, swept by all the ocean breezes. How long will mankind be in learning that all the natural laws exist by Divine appointment, and that the laws of health are the laws of God? We ought to feel that inattention to these laws is sinful, and that the retribution is certain. The trade of Bridport, which had been great for centuries in all manner of cordage, ropes, fishing-nets, etc., has latterly languished. These articles had all been made by hand, but now machinery has been substituted and steam-power, and much of the trade has been transferred to the north.

But leaving Bridport, we now commenced our pedestrian tour. A pedestrian cannot take too small or too light a knapsack. It ought to be such as he can carry on his back or in his hand without the least inconvenience. As Dr. Johnson said, "A traveller soon feels disposed to leave behind him everything but himself." Therefore let your baggage be very small and light. If you propose to visit a friend, or to stay a night at his house, tell him frankly that you are in summer-touring seaside costume, and that he must dispense with formali-

\* Mr. Glaisher and Mr. Coxwell, in a subsequent ascent, reached an altitude of about six miles. Dangerous symptoms appeared; blindness and faintness, besides suffering from the intense cold. The last reading by Mr. Glaisher of the barometer was at 10 inches, indicating about 54 miles; and of the thermometer -5, or 37 below freezing point. Mr. Coxwell allowed the ascent to proceed till he found his hands unable to move, and he could only open the valve by pulling the string with his teeth. A self-registering thermometer stood at -20, or 52 below freezing point.



ties. If he be not the man to do this, then it is better to eschew his house altogether. But if he be a friend indeed, and not a mere surface acquaintance, he will not stand on such conventionalities. Sweet is our escape from the tyranny of custom, to converse awhile with Nature herself.

Thus minded, we strode away up the long, long hill that leads out of Bridport towards Lyme, and at the top of it caught our first view of the sea through a gap in the downs; it was of the deepest blue, such as is seen in the Mediterranean. And here we would note, that with a blazing sky in the height of summer, the sea on our shores is as deeply and beautifully blue as ever it is in the Mediterranean. We have, of course, much less of such weather, but when we have an unclouded fiery sun, then the British Channel is as brilliantly blue as the Southern Ocean. Such was the case during the eight days of July we spent on this coast; we have seen tropical seas, but nothing finer or more brilliantly blue than the waters on our own shores. We take it that "the purple ocean" is always an exaggeration; it may be darkly blue, but hardly purple. Be this as it may, we believe that human vision could take in nothing more exquisite or voluptuous than the sea on the Dorset and Devon coast, as we saw it on those celestial days of July. The evanescent sparkles all over its luminous surface, under the glorious sun, combined with the ultramarine colour, left us no cause for regret that we were gazing on an English bay instead of the Bay of Naples.

This first glimpse of real blue water through a gap in the downs, impelled us to seek the nearest contact with it, without waiting for our arrival at Lyme Regis; and this we obtained near the pretty village of Chideock, which lies in the bottom between two lofty hills, about three miles from Bridport. A short walk through pleasant meadows brings one to the beach, where the cliffs on either hand subside and leave an open space. There is a coast-guard station here, and one is sure to meet that most interesting of characters—smart and intelligent seamen, men of good conduct, and who on these lonely stations are far removed from the vices and contamination of great towns. O ye who lie on your luxurious beds far inland, on some dark winter night when the wind is howling, think of the solitary coast-guardsmen who is abroad on these high cliffs or unsheltered downs. From these men the tourist will derive the most accurate information as to the coast and the accessibility of the various points.

There is, however, one serious drawback to this coast: you cannot walk by the sea; there are no sands, but a coarse shingle, where you sink at every step among the loose stones, which makes walking on it both slow and insupportably fatiguing. One estimates here the luxury of firm sands. For the same reason the bathing is rendered less pleasant by the sharp pebbles which, without due care, would hurt the feet. The cliffs are generally very accessible, and one can look down on the sea, but not walk by it with any comfort; and this applies to the whole of the coast of this bay, from Portland Bill to the mouth of the Exe. Nor can the pedestrian walk for any great extent on the top of the cliffs; he finds too many obstructions, deep dips and steep ascents, besides occasional chasms. But he can visit some principal points of the cliff, such as the Golden Cap, so called from the yellow gorse which grows around its summit. This is a towering cliff, the most prominent feature in the bay of Lyme; the lower part of it is the blue lias, and the upper part the green sand. A path leads nearly to the top, and there you command a

magnificent panorama from the white rocks of Portland, at the extreme east, to the sternly black precipitous cliffs which close the view a little to the west of Lyme.

Returning from Golden Cap, we pursued the road to Charmouth, and a more charming place, or a sweeter seclusion, we have never seen. The Char, a very clear streamlet, dances along its bed to the sea at the foot of the long hill up which the one bright clean street of Charmouth extends. Villas are built on the neighbouring slopes; altogether the brightness, cleanness, and comfort of the place are remarkable. The houses are all light-coloured, but not of the hideous and ghastly white-wash. Charmouth is more than half a mile from the sea, which is not visible from it, as some high grounds sloping inland intercept the view. Thus you are close enough to the sea, but not upon it. Its murmur is in your ears, every breeze from it fans your cheek, but you do not see it. For a permanent residence, perhaps this is more delectable than having it always under your eye. Cross three or four meadows, and you are on the beach, where there are bathing machines. We should much prefer Charmouth to Lyme. It is brighter, sweeter, and more rural. No place on our tour took our fancy so much as this. The inland views are very fine; eastward the eye rests upon Morecomblake, a mountain hamlet on an airy height, to gain which there is a long ascent of some two miles. Westward you look up towards the high ridge, over which you have to go to reach Lyme. Formerly a road, called Charmouth Lane, skirted the beach, and led from one place to the other. But the sea has since made such bold assaults upon the cliff that the lane has long since disappeared.

It is a pleasant walk from Charmouth to Lyme: at first a steep ascent until you gain the crest of the hill, and then a long winding descent into Lyme; or you may shorten the walk by a field-path across the shoulder of the hill. It was a fashionable watering-place last century, but it has long been in a state of suspended animation, and has only afforded a retreat for a few quiet families, who may possibly prefer it to its more showy rivals. Nor has its trade improved. It just keeps its own, apparently neither advancing nor receding. So long ago as our Edwards it was a parliamentary borough, and such it still remains. It has a certain rugged and antique visage, which, in truth, contrasts with the bright modern look of the more populous watering-places. The bathing is not good, and the water has a black colour in shore, owing to the stratum over which it flows. But the chief drawback at Lyme is its extreme hilliness; you are always either climbing or falling. The main street is a steep hill; you cannot leave the town without encountering a stiff ascent. Then the roads and walks are all of loose rolling gravel, which is fatiguing and hot to the feet. One does not like to be always climbing, but it is inevitable at Lyme. There is an excellent bathing-house, where you may have seawater baths, but the charges are high. There is no public reading-room in the town. Lyme has evidently given up the contest with more favoured places. There is a small pier which forms the evening promenade; it is of great strength, for it has to resist the terrific south-westers. From the pier you have the best view of the coast; in dull weather there is something awful in the black precipitous cliffs to the eastward. The blue lias looks black; there is no geological formation which, for effect, we should not prefer to this.

Leaving Lyme with no regret, our next point was to visit the celebrated landslip on our way to Seaton.\* It

\* For a farther account of this landslip, see "Leisure Hour," No. 554.

is between three and four miles from the town, and the latter half of the way is, for the pedestrian, through the fields. At a farm-house adjoining, called Dowlands, you get a ticket, price sixpence, to view the scene. Crossing some downs you come to the edge of a precipice, sheer and perpendicular, and from thence you see below, at a considerable depth, the whole of the land, some forty acres, which slipped away from the ground on which you stand, and was deposited on a lower level. It forms now a sort of miniature Alpine region. What Nature has elsewhere done on a gigantic scale, she has here done in miniature. Nothing can be more various or fantastic than the shape which the subsided forty acres have assumed. There are hills and ravines, mountain ranges and valleys, crags and precipices, pinnacles and volcanoes. All the wildness and variety which are to be found in the grandest mountain districts are here reproduced on a diminutive scale. But it is no scene of apparent ruin; Nature has covered all with her green robe, and trees and shrubs grow profusely throughout its extent.

Leaving the landslip, we wended our way through green lanes and over a hill side to the ferry at Axmouth. The Axe is a lovely stream—a resort for salmon, which prince of fishes, at least as far as eating goes, is likely to be more common since the passing of the late Act for the preservation of salmon. Across the Axe, we come at once on the beach in front of Seaton. The same heavy shingle is to be found here, and the same loose rolling gravel on the esplanade before the sea. Seaton is quite a small place, but with a comfortable inn and lodging-houses. The town is not built lengthways to the sea front, but in a street at right angles to it. Axmouth Head on one side and Beer Head on the other, close the coast view, which is thus a very narrow one, not more than two miles wide. We observed some new building just out of the town. The land scenery is good, but for a marine sojourn we should prefer most places to Seaton.

There was nothing to detain us here more than a few hours, so we posted onwards to Sidmouth. One cannot walk along the cliffs; the ups and downs are too trying, and the obstructions causing long deviations too many. So we were advised to take the turnpike road to Sidmouth, ten miles, leading quite away from the sea, and not again affording a sight of it, until we came to the top of Salcombe Hill, whence you have a view of the whole vale of Sidmouth—"a happy valley," as far as natural loveliness can make it, for it is bounded by two long ranges of hills facing each other west and east, and these not rugged or bare, but finely clothed with wood, gently sloping to the narrow plain between. The upper portions, however, of both ranges, are rather steep and the elevation considerable. These hills give spirit and even grandeur to the landscape. A lower hill-crescent circling round on the north joins them, and thus the vale of Sidmouth is completely inclosed, and an air of peacefulness and seclusion imparted to the whole scene. The town is tolerably good, and has a very lively look. There is a reading-room, and two very fair inns. But the broad and expansive sea-front is the grand feature of Sidmouth. One is not at the bottom of a deep and narrow bay as at Torquay, far away from the great expanse of ocean; you have a sea-front of twelve miles before you, extending from Beer Head east to Otterton Head west, and have a view of a fine range of cliffs for many miles on both sides; eastward you have grey cliffs terminating in the chalk rock of Beer Head, and westward the red sandstone cliffs with a profuse garniture of green. Sidmouth is decidedly the queen of all the sea-side places on this coast, and nothing

but its location so far out of the railway system has prevented this from being acknowledged. There is a noble cricket-ground, and a public promenade called the Portfield in front of the sea, and several other fields have paths and seats for the same purpose. There is excellent bathing, and a row of lodging-houses facing the sea, with a lawn in common before them. The greatest luxury of a sea-side place is, however, absent; there are no firm sands, but instead, the heavy shingle which distinguishes all this line of coast. Swansea and Tenby, though in a much less favoured region, have this great advantage and superiority—firm sands—which afford the lightest and most delicious footing in the world, more so even than the green sward, for the ebbing tide leaves the sands so cool to the feet. But it is well that no one place should monopolize all advantages. There is a delightful walk up to the summit of Salcombe Hill, on the very edge of the cliff, with benches at different stages of the ascent.

A most varied and interesting walk of six miles takes you to Budleigh Salterton, the end of our peregrination. The latter half of it is by the side of the Otter, a most clear and lovely stream. Precipitous cliffs of the old red sandstone, with oaks and beeches growing on the top of them, make the left bank of this river singularly picturesque. At its mouth stands Budleigh Salterton; its one street of white houses has an extremely lively and pretty appearance; it does not run parallel to the sea, but at right angles with it. There are some pretty villas; and there is also a high terrace, which affords a fine promenade. With small, but lively and pretty Budleigh Salterton, we closed a most delightful pedestrian excursion.

#### GEORGE BIDDELL AIRY, ESQ., F.R.S.,

ASTRONOMER-ROYAL.

ASTRONOMY as a science can number amongst its supporters some of the most gifted intellects of the world, whether ancient or modern. The histories of Greece and Egypt have handed down to our time the scientific labours of Thales, Hipparchus and Ptolemy, with others who, at that distant age, have contributed discoveries which now form recognised portions of this science. Many countries of Europe have also, in later times, been honoured in the possession of astronomers whose names have been held in the greatest veneration, even to the present moment. What lover of astronomy does not look upon those of Copernicus, Kepler, Galileo, Tycho Brahe, or our own Sir Isaac Newton, without confessing that to such great astronomers we owe very much of the perfection to which this science has been brought, and that very little can be added even now to the theory of the motion of the heavenly bodies taught by Newton in his "Principia?" The greater accuracy to which modern astronomy has attained, has depended more on the marvellous results obtained with so much precision by the use of superior astronomical instruments, than from any improvement in the theory itself. The modern astronomer is therefore enabled to employ these accurate observations in his investigations, and to deduce superior results to those attainable in the time of Newton.

Perhaps no astronomer of any country has ever devoted more time and attention to the improvement of astronomical instruments and observations, than the present Astronomer-Royal. In former numbers of "The Leisure Hour" the reader has been made acquainted with some of the noble conceptions of his skill, in the construction of the principal instruments now in use at the Royal Observatory, Greenwich; but these are only a few of





*G. B. Airy*

many others in several observatories and other places. These magnificent instruments will remain as lasting scientific monuments of rare mechanical genius.

George Biddell Airy, Astronomer-Royal, was born at Alnwick in Northumberland, on the 27th of July 1801. His early school life was, however, passed in the south of England. He became an undergraduate at Trinity College, Cambridge, in 1819; passed through his university course, graduating as Bachelor of Arts in 1823, with the honour of Senior Wrangler. It is reported, that so certain was he of obtaining the highest position of his year, that during the month preceding his final examination, when the students are generally so busily occupied, he relaxed his energies and passed his time in a kind of

holiday. The result showed that he had not over estimated his capabilities, for the number of marks obtained by him was so greatly in excess of those of the second wrangler, that virtually he was without a competitor.

Such a brilliant academical career could not fail to produce its fruits. In 1824, Mr. Airy was elected a Fellow of Trinity College, and in 1826, proceeded to the degree of Master of Arts. In the same year he was appointed Lucasian Professor of Mathematics. Sir Isaac Newton and Dr. Isaac Barrow both held this professorship, and in their day the office was made celebrated; but for many years it was regarded as a mere sinecure. Mr. Airy, however, with his active habits, was not content until he made it a practical benefit to the students. In

1827, therefore, he gave notice that it was his intention to give occasional public lectures on Experimental Philosophy. These lectures were continued during his residence at Cambridge, and many who have subsequently obtained University honours, remember with gratitude the clear and instructive explanations of the subjects which were discussed. In the year 1828, he was appointed to the Plumian Professorship of Astronomy.

From this time Mr. Airy may be considered one of the leading men in all astronomical pursuits. His official position in the University gave him the direction of the Cambridge Observatory, at which he resided until his removal to Greenwich. At Cambridge, he inaugurated a new system of astronomical daily observations, the form of publication of which has been a model adopted at several other observatories. It has always been the opinion of Mr. Airy, that an astronomical observation of a heavenly body is comparatively useless until it is completely reduced and published in a proper state for the use of the mathematical investigator. At Cambridge, therefore, all the observations were treated according to this principle, much of the calculations having been made by Mr. Airy himself.

The Northumberland equatorial was the principal instrument erected at the Cambridge Observatory during the direction of Mr. Airy. This splendid telescope with its mounting was designed by him in all its details, and is without doubt one of the finest instruments of its class, either in Great Britain or the Continent. The mounting of the mural circle and other instruments was also superintended by him.

On the resignation of Mr. Pond, the late Astronomer-Royal, in 1835, the government, to their credit, immediately offered the vacant office to Mr. Airy, whose reputation as an astronomer had long before this time been recognised by the scientific world of all countries. For the advantage of our national establishment in Greenwich Park, as well as for the scientific honour of the nation, it was fortunate that the offer was accepted. Once permanently established at the Royal Observatory, the internal regulations were soon arranged by him, according to a system which has served more or less as an example for the management of similar institutions. To know what the Observatory has become under the present Astronomer-Royal's direction, the reader has only to refer to the description of the different instruments, given in "The Leisure Hour," Nos. 523 to 526.

Though the daily business of the Royal Observatory is seldom heard of in the busy scenes of life, yet the official duties of the Astronomer-Royal and his assistants are of a very extensive character. Of these duties it is unnecessary to offer any explanation, but rather to confine our brief remarks to some of the principal personal investigations and researches which the Astronomer-Royal has from time to time undertaken in addition to the ordinary duties attached to his office.

To explain, or even to enumerate the titles of all the experiments made by Mr. Airy—details of which can be found generally in the "Philosophical Transactions" of the Royal Society, or in the "Memoirs" of the Royal Astronomical Society—would extend this slight sketch to a far greater length than our space will admit. A brief explanation of some of his principal investigations must therefore suffice.

The works of Mr. Airy, which are still in great request by Cambridge undergraduates, are his celebrated volume of "Mathematical Tracts," which has gone through several editions; the treatise on "Gravitation," written originally for the "Penny Cyclopædia," and a small work recently published, on "The Theory of Errors of

Observations." These works are all written in a clear and masterly manner, which makes them exceedingly popular amongst the mathematical students. Another production, "The Ipswich Lectures on Astronomy," is most valuable to those who wish to obtain some genuine information about the science. Articles in "The Encyclopædia Metropolitana," on the "Figure of the Earth," and on "The Tides," are also from the pen of Mr. Airy.

But perhaps the most magnificent work which the Astronomer-Royal has undertaken, is the reduction of all the observations of the moon and planets made at Greenwich since the year 1750. This was a subject which engaged the attention of Mr. Airy long before his appointment to his present office, and was actually commenced during his residence at Cambridge. The origin of this great work arose in consequence of a representation to the Chancellor of the Exchequer, made by a deputation of the British Association for the Advancement of Science, in conformity with a resolution passed by that body at their meeting in 1833.

The large mass of computations of which this work consists is published in three broad quarto volumes and a supplementary volume, containing the comparison of many thousands of observations of the moon and principal planets, with the corresponding results calculated according to the principles developed by the Newtonian theory of gravitation. This was an undertaking of which few men would volunteer the responsible superintendence. But to the Astronomer-Royal, the importance of the work was a sufficient compensation. In this spirit he willingly undertook the entire preparation and supervision of the calculations gratuitously, bringing the whole to a satisfactory conclusion after several years' labour. The magnitude of this work may be understood when it is stated, that for a considerable time sixteen computers were employed in the necessary arithmetical computations. On the publication of the printed volumes Mr. Airy received the gold medal of the Royal Astronomical Society, and subsequently a testimonial on vellum framed and glazed, from the same scientific body.

Such a gigantic undertaking on the part of the Astronomer-Royal, though known and appreciated by astronomers of all nations, has probably scarcely been heard of amongst the masses of our own country. This must of necessity be the case, when the subject is of such a technical nature to be properly understood only by a very limited section of savans. But notwithstanding this, a great practical benefit has accrued from the final results, which have been adopted in the construction of the new lunar tables of Professor Hansen, which are now employed in the calculation of the predicted places of the moon in the "Nautical Almanac." By means of these superior calculations, the mariner is enabled to fix his maritime position on whatever part of the globe he may be stationed, far more accurately than was possible before the adoption of the new tables in the computations of our national ephemeris.

But neither computing nor mathematical astronomy, nor the miscellaneous business connected with his office of Astronomer-Royal, prevents the active intellect of Mr. Airy from giving his occasional attention to more interesting departments of the science. First and foremost are his graphic descriptions of the appearances of the sun and moon during the period of a total eclipse of the former body. So important has the phenomenon of a total eclipse of the sun appeared to Mr. Airy, that he has made three distant journeys, in each of which he was successful in witnessing most of the extraordinary red

flame-like protuberances which are always visible on those occasions. On July 8th, 1842, he made his first of these observations near Turin; the only other Englishman who had gone on a similar errand being his late friend, Mr. Francis Baily, who was stationed at Pavia. But from the variable state of the weather, the Astronomer-Royal alone witnessed the eclipse in all its glory. At Pavia the sky was clouded. At the second eclipse, on the 28th of July, 1851, the observations were made on an extended scale under Mr. Airy's direction. He chose Göttenburg, Sweden, as his station, while at Christiania, Norway, and at Christianstadt, in the south of Sweden, assistants of the Royal Observatory made the necessary observations. This expedition was very successful. The third and last occasion was the eclipse of the 18th of July, 1860. For the proper observation of the phenomena, a very extensive expedition was organized by Mr. Airy, consisting of a great number of astronomers, known as the Himalayan Expedition, from the party being conveyed in H.M.S. "Himalaya." The centre of the eclipse passed over the northern part of Spain. In this instance, as in the two preceding eclipses, most important results were obtained.

Another expedition of great interest and value, originated by the Astronomer-Royal, was the determination of the longitude of the island of Valentia, on the south-west coast of Ireland, in the year 1844, by the transmission of chronometers from Greenwich. Accurate determinations of longitude have always been considered by astronomers to be of the highest importance, particularly in reference to the problem of the exact figure of the earth. With the assistance of the late Rev. R. Sheepshanks, Mr. Airy arranged a most elaborate scheme of operations. Temporary observatories were erected, one at Kingstown, and another at Valentia. Astronomical instruments were mounted, and competent observers stationed at each place to make the necessary observations and chronometer comparisons. Thirty chronometers were used. These were transmitted from station to station, either by railway, steamboat, or car. The resulting longitude is believed to be sensibly accurate.

Since the incorporation of the science of galvanism into the daily routine-work of the Royal Observatory in 1853, the Astronomer-Royal has devoted considerable attention to the verification of the hitherto standard longitudes of those of the principal observatories which could be easily put into communication with Greenwich, by a direct galvanic, or ordinary telegraph wire. Aided by the directors of the observatories of Cambridge, Brussels, Paris, and Edinburgh, Mr. Airy has been enabled to determine the longitude of these places with the greatest possible accuracy. In the whole of these galvanic operations, the guiding mind of the Astronomer-Royal has planned all the arrangements, which, though generally of a novel character, have never failed in their accomplishment.

If an abstract of all the investigations which have occupied the extra-official time of the Astronomer-Royal were inserted, several papers would be required\* before any justice could be done to the varied knowledge exhibited by him on a multitude of subjects. To one more, however, we must allude, because, from its practical connection with our iron-built ships, a great benefit to mankind has been the result. The apparatus which has been invented by Mr. Airy for correcting ships' compasses has proved an invaluable blessing to those who, from choice or necessity, are found on board an iron-built ship at sea. Accidents may, however, occasionally

occur, for iron ships supplied with this apparatus have been lost through an erroneous pointing of the compass; but in most cases it has been proved that some neglect, caused by the employment of unskilful hands in the preliminary adjustments, was the origin of the failure. Generally, when properly adjusted, the invention is a great boon to the sailor.

It could not be supposed that the heads of the Government would not avail themselves of the talent of their principal scientific officer. The Astronomer-Royal is, in fact, continually offering his advice on subjects with which he is familiar. His services have also been required on several important royal commissions—generally, however, on those which are connected more or less with science. The Railway Gauge Commission, and that for restoring the lost standards of weights and measures, are those in which Mr. Airy took a considerable interest.

Mr. Airy is a Fellow of the Royal Society, Vice-President of the Royal Astronomical Society, and a member of many others. Besides being a corresponding member of several of the principal foreign scientific societies, he has received the decoration of knighthood from the Emperor of Russia, and of the French, and from the King of Prussia. The Astronomer-Royal resides with his family at the Royal Observatory.

## THE TOURIST IN IRELAND.

### VI.—CARRICKFERGUS CASTLE.

"A REAL romantic-looking castle," quoth Thackeray, in his "Irish Sketchbook;" "jutting bravely into the sea, and famous as a background for a picture." I imagine that I have seen it doing duty in that capacity many times since.

It is the warder of Belfast Lough, and sufficiently grim-looking for the post; which was once no sinecure. Sir John de Courcy, lessee of Ulster under Henry IV, founded Carrickfergus Castle at the latter end of the twelfth century, as a refuge for his colonists. But an earlier fortress on the same rock was garrisoned by Edward Bruce for some time; and its protracted resistance saved his army. In the wars of William and James, Carrickfergus was conspicuous; and at a later period Paul Jones, the American privateer, tried his guns against it, and Thurot, the French commodore, actually held it for three days. It seems as if grimly dreaming of those old war-times, as it sleeps on its shadow in the dark water, this October noontide.

We drove seven or eight miles on an "outside car," for a closer inspection, through a richly cultured country outside Belfast. Antrim is said to be the wealthiest shire in Ireland; chiefly owing to the little vivid blue flower that waves in its fields, translating to earth the hue of the skies. Ten years ago, nearly a quarter of a million of money's worth was growing in those flax-grounds of Antrim; the amount so invested is probably much larger now.

Our road follows the edge of the Lough, which gradually widens from the embouchure of the Lagan, for twelve miles out to the sea. Handsome villa residences line the shore, almost the whole way. At first we are nearing the Cave-hill, which rises 1140 feet above the water, and bears on its precipitous front a striking semblance of Napoleon's profile. Ay, the very eagle face which looked over many a thunderous battlefield, is here reproduced with strange fidelity of feature in the superincumbent crags. But gradually, as the road winds, the likeness fades and disappears like a dissolving view. Geolo-

\* For an account of the Astronomer-Royal's pendulum researches, see "Leisure Hour," No. 545.



gists note that this hill is remarkable for basalt overlying limestone—the igneous above the aqueous—which, to unsophisticated people, seems to need explanation. We can trace cavities rifted in the sides of the rugged mural brow: whence its name.

"Och! the view from the top is grand intirely," says the driver, with a flourish of his whip. "The whole country is at yer honour's feet, an' a dale of the say into the bargain; an' troth, a slice o' Scotland itself, on fine days."

Two miles and a half from Belfast we pass Greencastle, so called from the ruins of an old fortress built by the De Burghs, Norman earls of Ulster and nominal lords of Connaught. In Henry IV's time, the constable of this stronghold enjoyed £20 a year salary; and none but an Englishman born was eligible for the post. Long ago the castle has crumbled away, having last done duty in checking the Irish rebels of 1641.

Farther on is Whitehouse; where the first cotton factory in Ulster was set up, and is still in full operation, whizzing lustily over the silence of the Lough. "Why Whitehouse?" we asked ourselves, being curious in the matter of derivation.

The driver came to a dead stop, opposite a small white cottage, at the base of green heights. "Does yer honour see that wee little house beyond there? Well, that was where William met Schomberg, when they were going to fight the battle of the Boyne—more power to them! and it was there they planned how to make *sparables* of James and his French papists, an' to save us from brass money and wooden shoes! And I'm tould that time there wasn't another house in sight, barrin' the Castle; an' big Belfast was only a weeny village. Anyhow, 'twas there 'the glorious, pious, and immortal memory' slept his first night on Irish ground—and by-an'-by I'll show yees where he set his foot on the soil when he landed, before Boyne Water *did* for James."

An Orangeman was our driver, evidently, and William his hero; in fact, we found that all history for him was embodied in two or three bits of that prince's biography, as for many hundreds of zealous Northerners of the same party-colour.

"Why," said a Belfast gentleman to us, "if you walk down 'Sandy Row' on a twelfth of July, with an orange handkerchief peeping out of your pocket, the whole population will want you to breakfast! No pedigree, no rent-roll, no public service, meets with the same respect among the masses of our city, as an inch of a yellow ribbon, or the orthodox lily!"

Whatever political mischiefs may have ensued from this popular enthusiasm, it has certainly conserved a high order of Protestantism, and given men a very firm grasp of their religious principles. Tractarianism has never been able to gain ground in Ireland.

A silent lonely town is Carrickfergus. It has all the decaying air of a gentle atrophy: deserted streets—shops which looked as though nobody ever bought the wares needlessly set forth in windows. A dead-bell was tolling, and we met the funeral of a child; so tiny a child, that its coffin could be carried on two handkerchiefs held by men. Far over the Lough lay the fertile coast of Down, and the clustering cottages of Holywood; and soft haziness about all.

The Castle also may have been asleep for a thousand years, so soundless is it. We walked up a steep slope to the deep gateway. Formerly there was a drawbridge, defended by a barbican or projecting tower. Look above you at the aperture, through which molten lead was cast on besiegers, who had gotten as far as the portcullis; see the groove, adown which worked the heavy bars of that

ponderous gate. When the chief strength of armies lay in men and not in artillery, all this was formidable. Half-moon towers flank the entrance, pierced with embrasures for fire-arms. Carrickfergus is still garrisoned, and considered fortified.

A soldier is our guide through the strange old stronghold. The walls of the chambers down here are ten feet thick, and each embrasure of a window would make a respectably sized closet. Daylight has a considerable struggle to act any part in illuminating rooms with walls so massy. There is an armoury, devoid of muskets; empty brackets stand around. But abundance of other military stores are kept here—barrack furniture and the like. The vaults under this keep hold great quantities of powder, not only for government, but in storage for Belfast merchants, locked up with keys of ponderous size. One has a slightly insecure feeling after hearing of these hundreds of barrels, enough to blow Carrickfergus Castle into tiny fragments. As we ascend from storey to storey, we find the walls thinning, and therefore the loopholes more lightsome. The highest chamber of all is vaulted, whitewashed, and forty feet long.

"Prepared for Daniel O'Connell, when he was prisoner in Richmond Penitentiary," announced our soldier, stiffly. "He was to be sent here, and would find it rather hard to get out, I guess."

Surely. To drop from the barred windows would be sheer into the sea at a great depth below; or, probably, a shattering against the foundation rock, which alone is thirty feet high, and gives its Gaelic name—"corrig"—to the whole place. "Corrig-fergus"—the rock of Fergus, from an ancient Scottish king, who built on it first.

Winding and worn steps brought us to the square top of the keep: whence is a fine view. Beneath is the brown pier, with a few sloops lying in its curve; there also is William III's stepping-stone, preserved from generation to generation. Farthest inland is the many-chimneyed Belfast, and ships crowding up to the Lagan river; an arrowy line of rail crosses the country towards it. Green slopes of Downshire recede on the opposite shore; the Mourne Mountains rise afar in dark blue masses; Slieve Donard, that highest peak, reaches the altitude of 2600 feet. Near the mouth of the Lough lies the white town of Bangor; beyond, the Capeland islands and the sea-horizon.

Many a hostile fleet has floated on the safe waters of this Lough. Schomberg battered Carrickfergus during the campaign of 1689, and two regiments of the Irish army held out for a week before they would capitulate. And then a wild scene was enacted below the walls of the ancient town; for the English colonists, infuriated at the cruelties and tyrannies of James, vowed that the capitulation was nought to them—they must have revenge. They would have massacred the regiments, had not Schomberg spurred through their tumultuous ranks, pistol in hand, and enforced the observance of the terms, that the Irish should be allowed to depart unharmed.

Such pestilence seized on the English ships lying here in 1689, that more than one has had every man of the crew dead, and has swung at anchor yonder, a veritable ship of death, manned only by corpses. What a ghastly tradition to belong to this smiling bay, which is so gentle that never a wreck has disfigured its shores; for but one reef, bare at low tide, and one shoal, are found through its extent: the latter has three fathom of water over it at ebb. A ship of King William's grounded there once, though bearing the pleasant-omened name of "Speedwell." But look yonder, across for four or five miles of water, where several ships ride in front of Holywood

village; that is a pool which dips so deep that vessels swim at low water while a bank twenty yards off is dry.

The daring Paul Jones, as before mentioned, entered Belfast Bay during the American war, and captured a British sloop of war from under the guns of the castle, but not till after some stout resistance. Many men yet living remember to have heard from their fathers of the incursion under Thurot, in 1760, when a thousand Frenchmen frightened all Ireland, and actually took possession of Carrickfergus. No wonder that Paul Jones should insult it with impunity eighteen years afterwards.

Coming down from the battlements, in the middle of a lobby, we are surprised by our guide pulling up a wooden cover, in the manner of a plug, and revealing a circular black orifice.

"Fergus's Well, sir—which caused, originally, this rock to be selected as a fortress, sir; most useful to the garrison in case of, siege, sir; water thirty-six feet down, sir," and he unbent so far as to cast in a fragment of mortar, which plashed sullenly into the circlet of water, with a sound of exceeding depth, when the lid was popped on again.

And seeing there were ladies in the party, he drew a certain key from his bunch, and would have us into the arsenal, where he displayed before our eyes sundry of the horrors of war. So grape and canister-shot can never again be to those ladies meaningless terms, slurred over without sensation in the recital of a battle. They will remember the muslin bags full of balls—each ball a death or a mutilation; the thin cases filled with the same, fit to burst from the shock of discharge—gentle names veiling such murderous capacities. With unction did our soldier-guide show forth a hand-grenade, and the manner in which it is thrown, with two or three swings from the arm of the thrower, while the fusee burns down a little, lest the enemy among whom it is cast should have respite to fling it back again. And he went through the pantomime of boring a port-fire, fixing it in a shell, and igniting it—to explain how to a nicety the exact moment and spot of explosion can be determined by the manager of the mortar. Perchance, fifty years hence, the advance of mechanical science will have these warlike appliances as much out of date as are matchlocks and arquebuses.

We were glad to reach open air again, and open light, on the battery, where the guns are rolled back, dismounted, some lying on the ground dishonoured—weeds growing peaceably among them, looking into their rusted throats, waving at their touch-holes with impunity. The sea, which they once commanded, washes up on three sides of the Castle. Looking back, we cannot but admire the rude strength of the brown old keep, whose sturdy proportions amount to an unintentional beauty. Looking forward, the great North Sea rolls in from the distance.

We retire through the portcullis, and beneath the now harmless machicolations, and across the dried moat, and think that the Castle is a pensioned veteran, good for little now, but (metaphorically) "to shoulder its crutch, and tell how fields were won." Thankful we feel for living in days and in a land where guns can be permitted to rust at leisure.

Another relic of olden time in Carrickfergus, is a portion of the wall which once encompassed the town—frail shattered fragments of rampart, with comely greenery veiling the rents. One massive arch crosses the road going eastward. The "Rustics of the Rock," as Carrickfergus citizens were once called, have not cared to conserve these relics. And here we bade the little capital and its memories farewell.

## LEDESDALE GRANGE.

A TALE OF COAL-FIELDS AND CORN-FIELDS.

CHAPTER XXVI.—A PECULIAR TRANSFER.

ANOTHER message to Mr. Rivers from The Grange—this time, however, at a civilized and respectable hour: not shortening the poor man's slumber, or scaring his respectable domestic out of her "seven senses;" for she had that unusually large number, by her own account.

"Mr. Purden not worse, I hope?" he inquired.

"Contrairey to that, I should say from the looks of him, sir. Missis said there was no hurry, and you were not on no account to flustergate yourself about coming up; only if you could step that way some time, she'd take it kind."

"I'll be with her soon," said Mr. Rivers; and he was at the house almost as soon as his answer.

There he saw Mr. Lucas, pacing up and down before the front door, with a ludicrously perturbed physiognomy, and evidently chafed in spirit. Not a little stick or stone that crossed his path that morning, but was made to feel that he was an irritated person; and the cane in his hand switched right and left, to the destruction of a few poor autumn flowers that had made an abortive effort to look gay and ornamental. When he saw Mr. Rivers, he left off switching, and went up to him.

"My dear sir," he began, "this is a most ridiculous affair. I feel quite ashamed that Mrs. Purden should so far have yielded to the absurd whims of her relative as to send for you; but she can bear to cross her in no respect."

"Really I am only too happy to think that Mrs. Cameron has the slightest interest in my affairs," said Mr. Rivers, smiling; "it must be of very recent growth, though, for you know I have been apparently worse than poison to her."

"Ah, true; well, I'm sure I do not know what to make of it all; in short," continued Mr. Lucas, with a tremendous switch of his cane, "it is, as I said before, a most absurd business, of which I beg to wash my hands altogether. One woman was ever too much for me; but when there are *two* in the case——"

Mr. Lucas had evidently no words for an emergency such as *that*, and Mr. Rivers, laughing, but in no slight degree mystified, walked up to the house.

Mrs. Purden had been watching for him, and opened the door herself.

"I believe you think we are all gone mad," she said, as she shook hands with him.

"Not yet," he said; "but possibly I shall before you have done with me."

"I really think you would not have come if you had known our folly beforehand."

"Mr. Lucas has been hinting that I should have done well to stay away; but what *is* it all? Have various articles of furniture been missed, and am I the victim? Now *is* there a policeman behind those curtains?" and Mr. Rivers began poking about the room in search of that imaginary official.

"Don't," said Mrs. Purden, when she could speak coherently, "or I shall not have time to say what I want. I really am ashamed to ask my questions, Mr. Rivers."

"Ask what you please," he answered, standing rigidly before her, "from the most abstruse of Mangnall's Questions downwards; I can but decline answering."

"Then *may* I ask, with all politeness, at what place you resided before you went to Stillorgan?"

"Going back a long time," he said. "Suspicious of

antecedents evidently. I lived, madam, for the space of one brief year in the town of Darley, as curate to the parish church."

"And before that?"

"At — College, Oxford, where I believe I was considered the most promising young man of my day."

"Doubtless; before that, I presume you were at school—where?"

"For a short time at a private school kept by a Mr. Freer, who loved caning as he loved his wife—perhaps better. Then I went to Harrow. Any more?"

Mrs. Purden hesitated, and seemed at a loss to proceed.

"Had you any little brothers or sisters?" she remarked, rather nervously.

"Dear little creatures! No, never, that I can remember. I think I *must* have remembered fighting with them."

"And how long is it since your parents died?"

"Well," said Mr. Rivers, "I could almost say with Topsy, that 'I 'specs I growed,' so dull is my recollection on that point. From circumstantial evidence, I have, however, reason to think that my parents *did* once exist, though I do not remember them." The start from Mrs. Purden that followed this announcement could hardly be unperceived. "A stern, grim-featured man"—Mrs. Purden slightly laughed to herself at this—

"whom my memory sometimes conjures up, may have been my honoured father. Of my mother I remember literally nothing. That, I trust, is as it should be, Mrs. Purden?"

"Oh, how should I know?" she answered hastily.

"Well, then, all I can say is, that if at this mature stage of existence, one or both of my parents are about to step forward and claim their beloved son, it is much to be hoped that they have 'braw lands,' perhaps even a title to bestow upon him." But though he spoke jestingly, there was something in the look of his hostess which puzzled, and made him rather anxious.

"And what may be the next act of the drama?" he inquired.

"I don't know yet," she said; "but if my aunt—if Mrs. Cameron comes in and speaks to you, you will remember—"

"Remember," he suggested, as she made a long pause, "that she is not quite like other people, and that she has been many years very much afflicted."

"I shall remember it," he answered; and, as the words passed his lips, she entered the room. She looked quite "like other people" then; Kate, who knew the fancy in her head, was astonished beyond measure at the ease and self-possession she now manifested. There was an air of grace and dignity in her deportment, which rendered her whole appearance striking and most attractive; and Mr. Rivers, who had only seen her on that one occasion in the sick chamber, marvelled at the quiet beauty of her features, and the brightness of the eyes, which were again fixed on him. But she betrayed no sort of agitation, and was by far the most collected of the three. Expressing her regret to Mr. Rivers that she had not sooner allowed herself the pleasure of making his acquaintance, she entered into conversation, with a tact and readiness of language which almost took her niece's breath away, so great was her bewilderment. "I fancied she could do nothing but groan," thought Mr. Rivers, during a quiet interval, "and she's eloquence itself!" but Mrs. Purden could have told him that, from the time he saw her, on that night of terror, she had *groaned no more*. Finding the two so extremely comfortable together, Mrs. Purden thought her presence unnecessary,

and slipped away, to see Mr. Lucas still parading up and down, with a moody countenance.

"Is that wretched business over yet?" he inquired, half savagely, half laughing, when he saw her.

"Oh dear, no, not half over. Now why does it vex you so much?" she added, taking hold of his arm. "Do you know, I really begin to think there's something in it."

"Something! There is enough trash, absurdity, and child's play in it, to make one think the dog-days had come back again, and that you had all got bitten together. What are you doing now with that poor deluded man inside?"

"Now tell me," said Kate, not heeding the last question, "what is there so very improbable, or, granting that, what so very impossible in the fact of a mother finding her son—?"

"Who was dead some five-and-thirty years previously; and ditto ditto on the son's part with respect to his mother!"

"But were they dead?" said Kate, "that is the question."

"Oh, certainly," said Mr. Lucas, laughing; "but my dear little goose, are you aware that we have the privilege of living in the nineteenth century?"

"Yes; I believe I am."

"And that the world is not quite so romantic a world as it was some hundred years ago; that marvellous coincidences don't take place quite so often as we learn they did in those days; that strange resemblances in feature and wonderful similarities of voice may be found together without affording premises from which to draw such crazy inferences as this; in a word, that, had you taken an old man's advice two days ago, and acted like your usually sensible self"—Kate made a most profound reverence—"you would have spared yourself and others a great deal of mortification and disappointment."

This was a fearfully long speech to digest, and Mrs. Purden took some time in the process; then she said quietly, "Well, we shall see;" which assertion was quite incontrovertible.

## MEN I HAVE KNOWN.

RICHARD MARTIN, OF GALWAY.

WERE all my sketches meant to be grave, assuredly I would not have chosen Dick Martin for one of my subjects. Yet he was a notable man, and one likely to be much mistaken in the general estimate made of him; for his sterling qualities were so embossed with wild humour and fun, that it was no easy matter to form a correct judgment upon his real character. Nor am I about to undertake that task, though some lights must be thrown casually upon my theme, as I call to mind a few of the eccentricities which covered the actual life of this strange phenomenon. Genuine Irish drollery predominating in the composition, it cropped out most luxuriantly in his sayings and doings, and begat the absorbing opinion of his being a sheer madcap, a blundering blade without rational aim, conduct, or capacity. This was, however, a great mistake. No madness had ever more method in it.

Dick was an impersonation of Lever's "Larry M'Hale":—

"Oh, Larry M'Hale, he had little to fear  
And never could want when the crops didn't fail;  
He'd a house and demesne, and eight hundred a year,  
And the heart for to spend it, had Larry M'Hale!



"It's little he cared for the judge or recorder,  
His house was as big and as strong as a jail;  
With a cruel four-pounder, he kept all in great order,  
He'd murder the country, would Larry M'Hale.

"He'd a blunderbuss too, and horse-pistols a pair—"

If we correct this portrait by reading many thousands of rental for the £800, and adding duelling pistols of the most accurate finish to the inventory of the armour, we shall have a very striking resemblance to the Galwegian hero. And I may here pause to remark how largely such characteristics as are celebrated in this song, not only indicate but tend to form the character of a people. Ballad lore has ever and truly been considered in this light. Where you hear little but warlike and patriotic effusions, you justly conclude that the country is proud, and prone to battle. Where hymns, psalmody, and sacred music are much cultivated, you safely infer a religious population. Where amatory lyrics and equivocal innuendo abound, you may rest assured of a sensuous race, addicted to heedless and vicious enjoyments. And so it is throughout. The delight in war is nourished by the feeling displayed in combative strains; thoughtfulness by the evidence of sacred outpourings; and vice by the alluring sentiment of love lyrics and romance. Cause and effect react on each other. The ballad embodies the ruling passion of the mature, and engenders similar propensities in the imitative young. In the human being, as in the animal world, the offspring "takes after its kind."

Now, if we apply this reasoning to Ireland, we must see how deleterious and subversive of law and order too great a proportion of her popular poetry long continued to be, though happily much purified at the present day. When revelry, folly, and recklessness form universal themes of witty applause and beguiling literature, and excesses of every kind are celebrated as national boasts, it is a bad sign of national morale, from the peer to the peasant. If the landed gentleman can rejoice in the praise of caring nothing for judge and recorder, it is the most natural and certain consequence that the cottier will think less harm of taking wild justice into his own hands, even to the extent of agrarian murder. If the squire brags of squandering his property in drunken frolics, can we wonder that the Irishman of lower degree, "in all his glory," should rush to Donnybrook Fair "to spend half a crown, meet with a friend, and, for love, knock him down, with his sprig of shillelah," or bludgeon! And this spirit ran riot throughout the land before, and culminated in the era of Dick Martin. All around him were slowly emerging from savagery; and excess, as the order of the day and night, was an inevitable result. The worst of it was the everlasting brag of the foibles and vices with which society was inflamed, thus perpetuating them from generation to generation. Among these, whisky is the "liquor of life," and the bard thus chants its panegyric:—

"Why do I love you so,  
When in all our encounters you lay me low?  
More stupid and senseless I every day grow—  
Tattered and torn you've left my coat,  
Yet I pardon you all, my sparkling dost!  
If you'd cheer me again."

And the curse of intemperance had many a laureate, delighting to applaud bestial revelry!

If from drunkenness we pass to outrage and riot, we have still the same stimulating pæan. A most favourite air through all ranks runs—

"We'll break windows, we'll break doors,  
The watch knock down by threes and fours,  
Then let the doctors work their cures,  
And tinker up their bruises.

"We'll beat the bailiffs out of fun,  
We'll make the mayor and sheriffs run;  
We are the boys no man dares dun,  
If he regards a whole skin."

The laudation of lawlessness and violence is contagious; it is but natural for the population to catch and hug the disorder:—

"Beating, bellowing, dancing, drinking,  
Sporting, swearing, never thinking;  
Living short but merry lives,  
Going where the devil drives."

Let it be noted that we are not speaking of the ignorant degraded labouring classes, but of wealthy educated Irishmen, at a time when the influence of religion was almost unfelt in the land.

But why pursue the ungrateful task? It is not my object, in this episode, to disparage Ireland—far from it—but to exhibit the period of Martin of Galway, which had its full influence on him, as on all his compatriots, and could be demonstrated as the origin and fertile source of many of the evils that deformed the social system. In different ways, as I have noticed, the lesson is apt for every country—Show me your common ballad literature and I will tell you what you are. What can be expected from the examples set and sung, where every sentiment is an encouragement to wrong-doing; where false names are given to every error, and false appearances are imposed to veil, if not to gild, every crime; where abduction is chanted as a proof of passionate love; where the neat lad (or rather boy, for all Irish desperadoes are "boys" in these verses, and seem to continue so till they are old men) parades his bravery in brawls, and his pluck in faction-fights; where the most worthless extravagance is hailed as noble generosity; and where the burial of the dead is profaned by licentious wakes, and even the dreadful execution of criminals is rendered more appalling by demonstrations of braggart mockery or callous indifference? So miserable and depraving a *beau idéal* must tend to wretchedness and guilt; and such was far too long and too widely placed for admiration before an extremely sensitive people. In justice let me add that the Irish are equally brave, indomitable in a good cause, equally affectionate in domestic life, equally truthful and independent, where lying and begging have not been bagotten and cherished by oppression, poverty, and mischievous example, in lieu of judicious education; and that, especially with reference to the topics on which I have dilated, the virtue of female character in Ireland stands, probably, highest on the roll of the British empire; and that obscene, or even indecorous song, is scarcely known in the Emerald Isle, whilst other portions of the realm could furnish an incalculable number of such debasing compositions.

And now this piece of pen and ink sketching of the back-ground brings me to my portrait. Richard Martin was born under such circumstances, reared amid such scenes, and, with a mind endowed with great natural vivacity, nurtured into the being he was in his maturer years, by influences which must ever possess great weight in the formation of character. He was accordingly, as may be said, an Irishman all over, and by no means an unworthy type of the Hibernian race. To his humanity and persevering efforts we owe the law for the repression and punishment of cruelty to animals. It needed the courage and spirit of an Irishman of the right stamp to overcome the obstacles that were opposed to this excellent measure. Arguments were not wanting, but ridicule was at once more annoying and hardly less potential. It was in one of his speeches in the House of Commons upon the subject, that the orator was inter-

rupted by ironical cheers; but he went on to the end without stop or notice, and when he had finished, stepped quietly across the floor towards the quarter whence the noise had proceeded, and with infinite mildness of manner presumed to ask who it was that cried "Hare, hare!" To an Irish gentleman, and one famous, too, for his skill in the duello, it was no trifle to volunteer a reply to such a question, and the derisive "Hear, hear!" was unacknowledged—only a member on a back seat pointed slyly down to a city representative sitting on the bench below him, and Martin's wrath was instantly appeased. "Oh," he exclaimed, "was it only an alderman!" and, turning on his heel, walked back to his place.

At that time duelling was everywhere a disgrace to civilization, and in Ireland it had become almost a sport to murder men in the "field of honour." Martin had not been out of fashion. I remember meeting him in a field of another kind—a dinner-party given by an official to two or three cabinet ministers, and to which the member for Galway, and I, the member for nowhere, but somehow connected with the "cruelty" matter, happened to be invited. We were both rather punctual, and consequently met before dinner-time, and had the reception-room to ourselves for a chat upon the state of "the Bill in the House," and other topics of the day—among the rest, a fatal duel which had just "come off," as the phrase went; and my companion congratulated himself on having been more fortunate in his little pieces of business—in proof of which he opened his frilled shirt, and, unbuttoning his white vest, showed me the scars of several pistol shots, not very pleasant to receive or look at, but nevertheless insufficient to deprive the legislature of the useful *M. P.* whose benevolence has established a name never to be forgotten, so long as a right and humane usage of the brute creation is enforced and cultivated as it ought to be by mankind. Yet the custom of single combat for any slight offence, or no offence at all, (happily put down at last,) had so familiarized him to the practice, that he appeared to value human life at a lower estimate than the life of a dog or an ass; and the imminent risk in a duel did not excite any feeling in him so strong as the sight or idea of barbarous treatment of a four-footed soulless creature, a mere beast of burden. It is curious how we get hardened and blinded by habit. Dick Martin might have a genuine regard for bipeds as well as quadrupeds; but it was his special vocation to protect and preserve the latter, and to care surprisingly little for the former, who he thought might take care of themselves.

I have narrated one of his parliamentary escapades; another was yet more laughable. A leading morning journal incurred his ire by a report of his speech, and he waited upon the editor for an explanation. The editor stated that it was written by one of the most intelligent and accurate reporters upon his staff, and he could hardly imagine any, far less any deliberate, intention to misrepresent the honourable gentleman. To this excuse the complainant only replied by pulling a copy of the paper out of his pocket, and indignantly pointing to the obnoxious passage, exclaiming, "Sir, did I ever spake in Italics?" The effect was so ludicrous, that both parties burst into a fit of laughter, and the affair was compromised without rancour or bloodshed.

I am not aware whether my next anecdote is equally true and original; but, as the Italians say, "*Se non è vero è ben trovato*"—"If not truth, it is very like it." With it I shall conclude the facetiae thrown into this sketch, in order to diversify it from the more serious lineaments of the series, and yet, I trust, not inconsistently with my main object, to convey instruction by example, even when

I may mingle amusement and jocularity with the concomitant precepts suggested by my various subjects. In my previous quotation from the reckless ballad of "Larry M'Hale," it is recorded that he feared neither judge nor recorder; and if any other man could safely defy these dispensers of the law, that man was Dick Martin. Possessed of an enormous territory, and a feudal castle in the wilds of Galway, he was unapproachable by legal process in his domicile, and when abroad, his parliamentary privileges secured his person from disturbance, as his dangerous courage did from offensive importunity or threat. He was eccentric in having vast debts, which he only measured hypothetically, and without correct calculation, against a vast domain and untold resources. His numerous tenantry were devoted to him, for he was liberal and congenial; and they could conceive nothing more worshipful, more exalted, or to be preserved more faithfully from inroad or insult. It may readily be conceived that to penetrate to the keep of such a chief, and through the crowd of his followers in such a camp, was not a job to be undertaken lightly or without peril. But the ministers of the law are exceedingly peremptory and daring, and on one occasion a writ-server (unwarned by the previous Irish example of a fellow underling, compelled not only to swallow the parchment he carried, but to digest the seal attached to it,) ventured to wend his way, with a process to Connemara. He managed to get within hail of the fortress, but was speedily terrified into a hurried retreat, or, as he described it, a run for his life.

With all his eccentricities, he was gifted with an abundant fund of sound common sense. His observation was acute, and his conversation agreeable, polite, and entertaining. Father Matthew has contributed something to rescue the country from the prevailing sin of drunkenness—the Encumbered Estate Act, to liberate a numerous class of the lower population from the crush of pauper landlords and cruel middlemen—emigration, to leave room for industry to exercise its energies, and prosper—the influx of capital to provide employment and promote improvement, with regular pay. There is a great change since the famed Richard Martin was gathered to his ancestors. Would it were more complete! He was nearly, if not quite, the last of his species—a remarkable, an extravagant, a strange, but not what is commonly called a bad man. His enormous property of thirty miles from his door to the boundary, has passed into the hands of those who have the means, and, I am told, are earnestly engaged in turning their stewardship to beneficent account. Should they, (as they might do without being ashamed,) erect a conspicuous monument to his memory, I would advise them to engrave the legend, "He was the most determined enemy to cruelty to animals, and the best friend of the world of dumb creation that ever lived."

Agreeably to the spirit of his country and period, the Lord of Connemara, who borrowed between three and four hundred thousand pounds upon his estate, now reported to be worth double that sum, lived up to the height of its reckless profusion. Alas! sad was the end of all. His only daughter, the last of his distinguished race, was reduced to absolute beggary, and, if my memory does not fail me, died the most piteous death that could befall a woman and a wife, untended and unassisted, on board a miserable small vessel, in which she was taking her passage to another hemisphere. The fate of the house is a romance too long to dwell on now, and Richard Martin's name serves only to point a moral on reckless living, or to adorn a tale of "the vicissitudes of families."